Atty. Docket No. KIK01 P321

CERTIFICATE OF MAILING

I hereby certify that this paper, together with all enclosures identified herein, are being deposited with the United States Postal Service as first class mail, addressed to the Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on the date indicated below.

06·02·06
Date

Catherine M. Updegraff
Catherine M. Updegraff

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Art Unit	:	3629
Examiner	:	Michael J. Fisher
Applicant	:	Kazuhiko Mori
Appln. No.	:	09/765,221
Filing Date	:	January 18, 2001
Confirmation No.	:	7372
For	:	CONTROL AND INQUIRY SYSTEM FOR CONSTRUCTION WORK

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION - 37 CFR §41.37)

1. Transmitted herewith is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on January 30, 2006.

2. **STATUS OF APPLICANTS**

This application is on behalf of:

_x_ other than a small entity.

___ a small entity.

3. **FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR §41.20(b)(2), the fee for filing the Appeal Brief is:

_x_ other than a small entity	$500.00
___ small entity	$250.00
Appeal Brief fee due:	$500.00

06/07/2006 EFLORES 00000017 09765221

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4. **EXTENSION OF TERM**

The proceedings herein are for a patent application and the provisions of 37 CFR §1.136 apply.

(a) _x_ Applicant petitions for an extension of time under 37 CFR §1.136:

Extension (months)	Fee for other than small entity	Fee for small entity
___ one month	$120.00	$60.00
_x_ two months	$450.00	$225.00
___ three months	$1020.00	$510.00
___ four months	$1590.00	$795.00

FEE: $450.00

5. **TOTAL FEE DUE**

The total fee due is:

Appeal Brief fee:	$500.00
Extension fee (if any)	$450.00
TOTAL FEE DUE:	$950.00

6. **FEE PAYMENT**

_x_ Attached are checks in the sum of $500.00 and $450.00.

___ Charge Account No. 16 2463 the sum of $_____.
A duplicate of this transmittal is attached.

7. FEE DEFICIENCY

_x_ If any additional extension and/or fee is required, this is a request therefor and to charge Account No. 16 2463.

Respectfully submitted,

6/2/06
Date

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APPEAL BRIEF (37 CFR §41.37)

This brief is in furtherance of the Notice of Appeal filed in this case on January 30, 2006.

The $500.00 fee required under §41.20(b)(2) is enclosed. If any additional fee is required, Appellants ask that the fee be charged to Deposit Account No. 16 2463.

This brief contains these items under the following headings, and in the order set forth below (37 CFR §41.37(c)(1)):

I. Real Party in Interest

II. Related Appeals and Interferences

III. Status of Claims

IV. Status of Amendments

V. Summary of Claimed Subject Matter

1. Independent Claim 1
2. Claim 4
3. Claim 5
4. Claim 6
5. Claim 7
6. Claim 9

7. Claim 10
8. Claim 11
9. Claim 12
10. Claim 13
11. Claim 14
12. Independent Claim 15
13. Claim 18
14. Claim 19
15. Claim 20
16. Claim 21
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VI. Grounds of Rejection to be Reviewed on Appeal

VII. Argument

A. The References

1. U.S. Patent No. 5,093,794 Issued to Howie et al.

B. Legal Considerations

1. The rejection of claims 1-14 under 35 U.S.C. §101 as being directed to non-statutory subject matter

2. The rejection of claims 1-3 under 35 U.S.C. §103(a) as being unpatentable over Howie et al.

a. Claims 1-3 and 6-14

b. Claims 2-4

c. Claims 15-18 and 20-28

I. Real Party in Interest

The real party in interest in this application is Kabushiki Kaisha Iida Sangyo, the assignment to which was recorded at Reel 011481, Frame 0293 on January 18, 2001.

II. Related Appeals and Interferences

Appellants are aware of no other appeals or interferences that would directly affect or be directly affected by, or have a bearing on, the Board's decision in the pending appeal.

III. Status of Claims

This is an appeal from a final rejection of claims 1-29 of the above-identified application. Thus, all of pending claims 1-29 are presently rejected. Claims 1-29 were originally presented. Of the original claims, only claims 1 and 15 have been amended. Claims 1 and 15 were amended in the Amendment filed June 20, 2005. Proposed amendments under 37 C.F.R. §1.116 were filed on December 1, 2005, but these proposed amendments were not entered. Claims 1-29, as last amended on June 20, 2005, are attached in the Appendix hereto.

IV. Status of Amendments

All Amendments filed in this application, except the above-identified proposed amendments filed on December 1, 2005, have been entered.

V. Summary of Claimed Subject Matter

The present invention provides a way for a home buyer ("client") to obtain information concerning the progress of the home construction from a remote location, and request changes or

ask questions relating to the construction. This substantially reduces the need for the home buyer to visit the construction site (often remote), and also allows the home buyer to more closely monitor the progress of the construction.

The method and system of the present invention handle construction project information related to the construction of a building. The information includes content information, work schedule information, work progress information, and change order information. The method is implemented via a system including a control and inquiry computer system coupled to a computer network such as the internet, and home builder and client (e.g. home buyer) computer systems that are also coupled to the computer network. Control and inquiry code executed on the control and inquiry computer system causes the control and inquiry computer system to receive content information related to a building design from the home builder computer system. Work schedule information that indicates a projected schedule as to when various construction stages of the building are to be completed is also received from the home builder computer system. Work progress information indicating the actual progress of the building is also received, as is change order information directed to changes in the design of the building. Construction project information is provided to an authorized party when requested. The authorized party includes a client for which the building is being constructed.

The system and method of the present application permit a home buyer to access information concerning the building design and progress of the construction from a remote location via a network. Thus, the home buyer does not need to visit the construction site to inspect the building to determine if it is being built correctly and according to schedule. Access to the information can be restricted to authorized parties, and changes in the work schedule and/or design of the home or other building may be posted on the system. The builder inputs information to the system to provide day-by-day and hour-by-hour work progress to the client/buyer of the building. Also, the client/buyer can notify the builder if any question arises, or if any defect is discovered. The system may send a warning to a portable telephone or the like of the construction superintendent and/or the home builder if the site superintendent fails to update the work schedule on a scheduled work day. The site superintendent receives the work program for each day via a personal computer or the like so

the construction site superintendent can confirm the schedule every morning. The client/buyer can reliably confirm completion of each work stage from inspection results posted to the system, which can include photos, videos, or the like. The system instructs payment to a subcontractor after confirming that a work stage for which the subcontractor was responsible has been completed.

1. Independent Claim 1

One aspect of the invention, as recited in claim 1, is a method for handling construction project information related to the construction of a building. As shown in Fig. 1A, the method may be implemented by a plurality of home builder computer systems (A, B, C, etc.), a client computer system U, and a work progress control and inquiry computer system S via a network N, such as the Internet. The construction project information of claim 1 includes content information, work schedule information, work progress information and change order information. As described at page 3, lines 1-2, and at page 13, lines 7-11, the content information is related to the design of a building to be constructed, and may include a design drawing. The method includes the steps of receiving content information related to designs for a plurality of buildings. The method also includes receiving work schedule information that indicates a projected schedule as to when various construction stages of the buildings are to be completed. Work progress information indicating the actual progress of the buildings is received, as is change order information directed to changes in the designs of the buildings. As described at page 5, lines 10-14 and at page 8, lines 4-10, the system provides the client with change information related to the work schedule, the reason for the change, and a comparison between the initial work schedule and the changed work schedule. The method further includes the step of providing construction project information on one of the buildings to an authorized party, when requested, wherein the authorized party includes a client for which is the building is being constructed. The security/privacy provisions of the system are described at page 5, lines 1-8, and at page 11, lines 11-23.

2. Claim 4

Another aspect of the invention, as set out in claim 4 and described at page 5, lines 15-17, includes the method of claim 1, wherein the construction project information further

includes profiles of a general contractor, a site superintendent and all subcontractors furnishing at least one of labor and material.

3. Claim 5

According to another aspect of the present invention, as described at page 7, lines 16-20, and at page 15, lines 4-6, and at page 18, lines 7-12, the method includes notifying at least one of the general contractor and the site superintendent when work progress information is not received for a predetermined time.

4. Claim 6

According to another aspect of the present invention, as described at page 6, lines 6-19, and at page 8, lines 15-19, the work progress information may include at least one current image of the construction site and the building which details changes in at least one of the building and construction site that have occurred from at least one previous image.

5. Claim 7

According to another aspect of the present invention recited at page 7, lines 3-9, the method may include authorizing payment to a subcontractor that has fulfilled its obligation when the at least one current image validates that the subcontractor has furnished at least one of the contracted labor and contracted material.

6. Claim 9

According to another aspect of the present invention described at page 7, lines 16-20 and at page 18, lines 5-12, the system may request updated construction project information from at least one of the general contractor and the site superintendent when required construction projection information has not been received within a predetermined time.

7. Claim 10

According to another aspect of the present invention as described at page 8, lines 11-14, the method may include receiving a building site inspection request from a building purchaser, and providing the building site inspection request to at least one of the general contractor and site superintendent. A mutually acceptable time and date is coordinated between the building purchaser and at least one of the general contractor and the site superintendent.

8. Claim 11

Yet another aspect of the present invention is recited at page 8, lines 20-23, and claim 11, wherein the method includes providing a warning to at least one of the general contractor and site superintendent when a building purchaser reports a building associated problem.

9. Claim 12

Another aspect of the present invention is described at page 8, lines 22-23, and claim 12, wherein the method includes scheduling correction of the reported building associated problem of claim 11 with an appropriate subcontractor.

10. Claim 13

According to another aspect of the present invention, as set forth in claim 13, and described at page 9, lines 1-14, the construction project information may include location information for determining the location of at least one of the general contractor, site superintendent, and subcontractors furnishing at least one of labor and material.

11. Claim 14

Claim 14 depends from claim 13, and recites that the location information is provided by a portable telephone in the possession of at least one of the general contractor, the site superintendent and the subcontractor. The subject matter of claim 14 is described at page 9, lines 9-13.

12. Independent Claim 15

Yet another aspect of the invention, as recited in claim 15, is a control and inquiry system for handling construction project information related to the construction of a building. The construction project information includes content information, work schedule information, work progress information and change order information. As shown in Fig. 1A, the system may include a work progress control and inquiry computer system S and one or more home builder computer systems (A, B, C, etc.) coupled to the network, a client computer system U coupled to the network, coupled to a network N, such as the Internet and storing construction project information. As described at page 3, lines 1-2, and at page 13, lines 7-11, the content information is related to the design of a building to be constructed, and may include a design drawing. The system further includes control and inquiry code executing on the control and

inquiry computer system and causing the control and inquiry computer system to perform the steps of receiving content information related to designs for a plurality of buildings, and receiving work schedule information that indicates a projected schedule as to when various construction stages of the buildings are to be completed. Work progress information indicating the actual progress of the buildings is received by the system, as is change order information directed to changes in the designs of the buildings. As described at page 5, lines 10-14 and at page 8, lines 4-10, the system provides the client with change information related to the work schedule, the reason for the change, and a comparison between the initial work schedule and the changed work schedule. The code further executes the step of providing construction project information on one of the buildings to an authorized party, when requested, wherein the authorized party includes a client for which is the building is being constructed. The security/privacy provisions of the system are described at page 5, lines 1-8, and at page 11, lines 11-23.

13. Claim 18

Another aspect of the invention, as set out in claim 18 and described at page 5, lines 15-17, includes the system of claim 1, wherein the construction project information further includes profiles of a general contractor, a site superintendent and all subcontractors furnishing at least one of labor and material.

14. Claim 19

According to another aspect of the present invention, as described at page 7, lines 16-20, and at page 15, lines 4-6, and at page 18, lines 7-12, the control and inquiry code causes the control and inquiry computer system to perform the additional step of at least one of the general contractor and the site superintendent when work progress information is not received for a predetermined time.

15. Claim 20

According to another aspect of the present invention, as described at page 6, lines 6-19, and at page 8, lines 15-19, the work progress information may include at least one current image of the construction site and the building which details changes in at least one of the building and construction site that have occurred from at least one previous image.

16. Claim 21

Another aspect of the present invention recited at page 7, lines 3-9, the control and inquiry code causes the control and inquiry computer system to perform the additional step of authorizing payment to a subcontractor that has fulfilled its obligation when the at least one current image validates that the subcontractor has furnished at least one of the contracted labor and contracted material.

17. Claim 23

According to another aspect of the present invention and described at page 7, lines 16-20 and at page 18, lines 5-12, the control and inquiry code causes the control and inquiry computer system to perform the additional step of requesting updated construction project information from at least one of the general contractor and the site superintendent when required construction projection information has not been received within a predetermined time.

18. Claim 24

Another aspect of the present invention as described at page 8, lines 11-14, the control and inquiry code causes the control and inquiry computer system to perform the additional step of receiving a building site inspection request from a building purchaser, and providing the building site inspection request to at least one of the general contractor and site superintendent. A mutually acceptable time and date is coordinated between the building purchaser and at least one of the general contractor and the site superintendent.

19. Claim 25

Yet another aspect of the present invention is recited at page 8, lines 20-23, and claim 11, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of providing a warning to at least one of the general contractor and site superintendent when a building purchaser reports a building associated problem.

20. Claim 26

Another aspect of the present invention is described at page 8, lines 22-23, and claim 12, wherein the control and inquiry code causes the control and inquiry computer system to

perform the additional step of scheduling correction of the reported building associated problem of claim 11 with an appropriate subcontractor.

21. Claim 27

According to another aspect of the present invention, as set forth in claim 27, and described at page 9, lines 1-14, the construction project information may include location information for determining the location of at least one of the general contractor, site superintendent, and subcontractors furnishing at least one of labor and material.

22. Claim 28

Claim 28 depends from claim 7, and recites that the location information is provided by a portable telephone in the possession of at least one of the general contractor, the site superintendent and the subcontractor. The subject matter of claim 14 is described at page 9, lines 9-13.

23. Independent Claim 29

Another aspect of the invention, as recited in claim 29, is a method for handling construction project information related to the construction of a building. As shown in Fig. 1A, the method may be implemented by a plurality of home builder computer systems (A, B, C, etc.), a client computer system U, and a work progress control and inquiry computer system S via a network N, such as the Internet. The construction project information of claim 1 includes content information, work schedule information, work progress information and change order information. As described at page 3, lines 1-2, and at page 13, lines 7-11, the content information is related to the design of a building to be constructed, and may include a design drawing. The method includes the steps of receiving content information related to designs for a plurality of buildings. The method also includes receiving work schedule information that indicates a projected schedule as to when various construction stages of the buildings are to be completed. Work progress information indicating the actual progress of the buildings is received, as is change order information directed to changes in the designs of the buildings. As described at page 5, lines 10-14 and at page 8, lines 4-10, the system provides the client with change information related to the work schedule, the reason for the change, and a comparison between the initial work schedule and the changed work schedule. The method

further includes the step of providing construction project information on one of the buildings to an authorized party, when requested, wherein the authorized party includes the homebuilder computer system and the client computer system for which is the building is being constructed. The security/privacy provisions of the system are described at page 5, lines 1-8, and at page 11, lines 11-23.

VI. Grounds of Rejection to be Reviewed on Appeal

1. Claims 1-14 stand rejected under 35 U.S.C. §101 as directed to non-statutory subject matter.

2. Claims 1-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,093,794 to Howie et al.

VII. Arguments

A. The References

1. U.S. Patent No. 5,093,794 Issued to Howie et al.

The Howie et al. patent discloses a shop scheduling system referred to as a Cooperative Scheduling System (CSS) in which a central routine, the Work Order Manager (WOM) interacts with a set of sub-routines representing "shop resources" comprising one or more machines to first set a planned schedule allowing for finite shop capacity at "bottlenecks" in a planning mode and then, in an operational mode, to correct and modify the schedule to accommodate for inevitable delays, machine breakdowns, changes in priority, etc. (See column 2, lines 7-17).

The "Master Scheduler", "Work Order Manager", and "Resource Brokers" (Fig. 1) are computer routines (i.e., computer software). The planning mode produces an estimated target date for each work order and operation within the work order, and produces estimates as constrained by resource capacity. Howie '794 states that "In Cooperative Scheduling, the philosophy that throughput should be throttled by the most critical shop resources [machines] is adopted. Planning mode uses this assumption to constrain schedules by identifying the critical shop resources [machines] and scheduling all routes that pass through them first." (See column 2, lines 52-57). Howie '794 further states that "Operational mode uses the weighted tardiness

measure established in the planning mode to support decisions in the short term. There are two types of decisions which must be supported: releasing decisions and reacting decisions." (See column 3, lines 25-41). Releasing decisions determine what job should be released next to this work center. Howie '794 further states that "Planning mode produces a list of work predicted for each work center. At execution time, this list is sequenced according to the weighted tardiness measure: the route which will contribute to an on time shop the most goes first." (Column 3, lines 25-41). And also states that "Reacting decisions are made when new information affecting a planned schedule is received or when assumptions have changed. . . . the best way is measured according to the weighted tardiness measure." (Column 3, lines 25-41).

Thus, Howie '794 is concerned with the problem of utilizing computer routines to allocate a large number of parts to be fabricated among groups of machines that perform different operations on the parts. In Howie '794, the parts are moved between the various groups of machines for performing various operations, and the priority of the various parts is determined by the "weighted tardiness measure" according to the programmed routines. Howie '794 creates schedules for the parts to determine the order in which the parts are moved around within a shop so the various operations can be performed at different groups of machines.

B. Legal Considerations

Claims 1-14 of this application have been rejected as "directed to non-statutory subject matter." As discussed below, Applicant respectfully submits that this rejection is improper according to the recent decision by the United States Patent and Trademark Office Board of Patent Appeals and Interferences in *Ex parte Lundgren*, BPAI 2003-2088 (Sept. 2005), which states that "Our determination is that there is currently no judicially recognized separate 'technological arts' test to determine patent eligible subject matter under §101". Accordingly, claims 1-14 are believed to be directed to statutory subject matter.

All of the claims of this application have been rejected as being obvious under 35 U.S.C.§ 103. As further discussed below, Appellants respectfully submit that a *prima facie*

case of obviousness has not been established. The requirements for making a *prima facie* case of obviousness are described in MPEP §2143 as follows:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. *Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.*
>
> The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). [emphasis added]

One of the reasons it is necessary to show the motivation known in the prior art to modify a reference teaching is to avoid impermissible hindsight reconstruction of the claimed invention. Hindsight is not permitted in an obviousness analysis as the question of obviousness pertains to what one of ordinary skill in the art would have found obvious *at the time of the invention*. Regarding the use of hindsight, MPEP §2142 states:

> To reach a proper determination under 35 U.S.C. §103, the Examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made. In view of all factual information, the Examiner must then make a determination whether the claimed invention 'as a whole' would have been obvious at the time to that person. Knowledge of applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the 'differences' conduct the search and evaluate the 'subject matter as a whole' of the invention. The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art. (Emphasis added).

MPEP 2141.02 provides further guidance concerning the teachings of the prior art: "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." MPEP 2141.02, citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Applicant further notes that "It is impermissible within the framework of §103 to pick

and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965); see also *In re Mercer*, 515 F.2d 1161, 1165-66, 185 USPQ 774,778 (CCPA 1975).

As explained further below, Appellant submits that Howie et al. does not disclose a system/method for handling construction information, and Howie et al. would first need to be extensively modified to provide such a system/method. Howie et al. further does not provide any motivation whatsoever to modify such a system to provide a home buyer with the construction. Rather, Howie et al. only deals with scheduling problems, not providing a home buyer with information, and providing for changes by the buyer. Thus, Howie et al. would have to be extensively modified in three ways, once to provide for handling construction project information, again to provide the construction project information to a home buyer, and yet again to permit control/input by the home buyer. The Examiner has not addressed the need to extensively modify Howie et al., and has therefore not identified any motivation that would have led one of ordinary skill in the art to make such modifications. For this reason, Appellants submit that a *prima facie* case of obviousness has not been established.

1. Claims 1-14 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

In the Office Action dated September 1, 2005, the Examiner states that "claims 1-14 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Specifically, there is no technological innovation included in the limitations." The "technological innovation" basis for the rejection under §101 is clearly improper in view of the recent *Ex parte Lundgren* decision, which states that "In determining whether or not a claim meets the requirements of 35 U.S.C. §101, there is no requirement that the claimed subject matter fall within the "technological arts". *Ex parte Lundgren*, BPAI 2003-2088 (Sept. 2005). ("Our determination is that there is currently no judicially recognized separation 'technological arts' test to determine patent eligible subject matter under §101"). Applicant further submits that providing construction project information to a home buyer ("client") is

not merely an abstract idea or algorithm, but rather is a concrete, tangible and useful result, such that claims 1-14 do contain statutory subject matter.

2. Claims 1-29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Howie et al.

a. Claims 1 and 15

Claims 1 and 15 are in independent form, and claim 1 recites a method for handling construction project information, and claim 15 recites a control and inquiry system for handling construction project information. The method of claim 1 includes the steps of receiving content information related to designs for a plurality of buildings, receiving work schedule information that indicates a projected schedule as to when various construction stages of the buildings are to be completed, receiving work progress information that indicates the actual progress of the buildings, receiving change order information directed to changes in the designs of the buildings, and providing the construction project information on one of the buildings to an authorized party, when requested, wherein the authorized party includes a client for which the building is being constructed.

Independent claim 15 recites a system including a control and inquiry computer system coupled to a computer network, a homebuilder computer system coupled to the computer network and a client computer system coupled to the computer network. The system includes control and inquiry code executing on the control and inquiry computer system and causing the control and inquiry computer system to perform substantially the same steps as recited in the method of claim 1.

As discussed above, Howie et al. discloses a way to make priority decisions taking into account limited shop resources. However, Howie et al. does not in any way recognize the problems associated with providing an outside, potentially remote party such as a home buyer/client with construction project information including content information relating to the designs for a plurality of buildings, work schedule information and work progress information that indicates the actual progress of the buildings, and change order information directed to changes in the designs of the buildings. Applicant's unique arrangement provides a way for a

home buyer/client to obtain information concerning not only the design and scheduling of a building, but also the actual construction progress and changes in the designs of the buildings.

Contrary to the approach that was apparently taken by the Examiner, it is improper to focus solely on potential similarities between a claimed invention and a given prior art reference to initially conclude that it would have been obvious to modify the prior art, but then focus on the differences between the cited art and the claimed invention to hypothesize a motivation to modify the prior art reference in a second manner. More specifically, there is no teaching or suggestion whatsoever in Howie et al. itself to use the disclosed shop scheduling system to handle construction project information pertaining to the construction of a building as recited in independent claims 1 and 15. As noted above "a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." MPEP 2141.02, citing *Gore, supra.* Howie et al. discloses a distributed, capacity constraint scheduling system including a substantial number of features that deal with the specific problems associated with releasing decisions, reacting decisions, and priority decisions relating to performing specific tasks utilizing different machines within a shop that perform machine operations and the like on groups of parts being fabricated in the shop. There is absolutely no teaching or suggestion in Howie et al. itself that there would be any advantage or reason to modify the Howie job scheduling system for use in a construction environment. Still further, it is not at all clear that the job scheduling system of Howie et al. would even function properly if an attempt to use the job scheduling system in a construction environment were attempted.

For example, each of the "Resource Brokers" (BROs) of Howie et al. are associated with a group of machines that perform operations on the parts being fabricated. The BROs have programmed routines which may run on local workstations (col. 3, lines 59-63), and the BRO routines notify the Work Order Manager (WOM) if a new start time is not possible (col. 3, lines 42-50). Both final scheduling and the first attempt at schedule recovery are "delegated" to the BRO routines (col. 3, lines 59-61). How this could be implemented to provide for home building control and inquiry is very unclear. What, specifically, would the BROs do? Applicant has reviewed Howie et al. in detail, and can find no teaching or

suggestion to modify the BRO computer routines to provide for input from a home builder or client (homebuyer). Furthermore, it is also very unclear how a "weighted tardiness measure" implemented via an automatic computer routine to alleviate bottlenecks and schedule a large number of parts requiring various fabrication steps, could be used in constructing a building such as a house. How would the Howie et al. system utilize the "weighted tardiness measure", a measure of the product priority and number of days late (col. 2, lines 47-50), when there are not any parts to be given priority and no groups of machines to which the parts are scheduled? Applicant reiterates that "a prior art reference must be considered in its entirety." MPEP 2141.02, citing *Gore, supra*. Applicant also reiterates that "it is impermissible within the framework of §103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Wesslau, supra*.

Applicant further notes that "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP 2143.01(VI), citing *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (emphasis added). Although it is quite unclear if Howie et al. could be modified to the extent necessary to provide a construction work control and inquiry system, such extensive modification would most certainly render Howie et al. unsuited for its original purpose. As discussed in more detail above, Howie et al. provides a computer routine that automatically schedules parts to be fabricated utilizing a variety of machines in a shop. The Cooperative Scheduling System utilizes a "weighted tardiness measure" in resolving bottlenecks and for scheduling of the machines. Also, all of the communication between the WOMs and the BROs appears to be done automatically via computer code utilizing the "weighted tardiness measure." Applicant is not aware of any way to modify Howie et al. to provide a construction control and inquiry system without rendering Howie et al. unsuitable for automatic scheduling of parts and machines in a shop.

Applicant further asserts that Howie et al. would not enable one skilled in the art to make and use the construction project information handling method and system of claims 1 and

15, respectively. "In order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method." *Motorola, Inc. v. Interdigital Technology Corp.*, 43 USPQ 2d 1481, 1489 (Fed. Cir. 1997) (emphasis added) (quoting *Beckman Instruments, Inc. v. LKB Produkter AB*, 13 USPQ 2d 1301, 1304 (Fed. Cir. 1989)). Howie et al. does not teach how the Cooperative Scheduling System (CSS) and Work Order Manager (WOM) that interacts with a set of sub-routines representing "shop resources" including one or more machines to first set a planned schedule that allows for finite shop capacity at "bottlenecks" and then, in an operational mode, to correct and modify the schedule to accommodate for machine breakdowns, changes in priority, etc. could be modified to handle construction project information as recited in claims 1 and 15 of the present application. (Howie et al., column 2, lines 7-17). Specifically, Howie et al. teaches resource brokers that handle the machines that can perform the operations on the standard list. The machines may be a N/C Programming Group, a heat treat group, a process planning group, or a vtl group. Howie et al. does not teach what information the Resource Brokers would use in a construction environment, or how the information would be processed to provide the schedule options. At column 6, lines 1-37, Howie et al. describes the process by which the work order Manager starts with an order for a part or parts, sends out calls (a set of parameters) to the relevant Resource Brokers which handle the machines that can be perform the operations. Each broker searches a database to find the parameters of the part, such as the physical size and so on to select which of the machines it controls that can be used. The broker than scans a time reservation list for each machine to find at least one open machine window, either on one machine or more than one machine. The broker formulates bids that contain the proposed start and finish times for the operation and an indication of the cost of this option in terms of weighted tardiness. The broker selects bid windows to be returned to the WOM according to local strategy that may not be the same as the global strategy. "Typically, the local strategy is to minimize the weighted tardiness function which is a calculated quantity which measures the impact of delay of this part on the total shop through put. The Work Order Manager then scans through the list of bids from each broker and selects a set of award windows (one

window for each operation) that will do the job. The choice will be governed by the global strategy which is usually getting parts out on time."

b. Claims 4 and 18

Claim 4 depends from claim 1, and claim 18 depends from claim 15. Claims 4 and 18 both recite that the construction project information further includes profiles of a general contractor, a site superintendent and all subcontractors furnishing at least one of labor and material. Applicant asserts that Howie et al. does not disclose or suggest any such arrangement. At column 6, lines 1-37, Howie et al. discloses the Work Order Manager and the Resource Brokers "which handled the machines that can perform the operations on the standard list." Howie et al. further states that "each broker then searches the database to find the parameters of the part, such as a physical size and so on to select which of the machines it controls that can be used. The broker then scans the time reservation list for each machine to find at least one open machine window, either on one machine or more than one machine." Applicant asserts that it is unreasonable and contrary to the actual teachings of Howie et al. to assert that "the project information includes profiles of those doing the work (Fig. 1, blocks under "resource broker" blocks)" as asserted by the Examiner. Applicant appreciates that claims are broadly construed during prosecution. However, even during prosecution claim terms cannot be contorted without bound in an unreasonable manner: "The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach." MPEP 2111 (emphasis added). MPEP 2111.01(I) states that "words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification." Furthermore "'plain meaning' refers to the ordinary and customary meaning given to the term by those of ordinary skill in the art." MPEP 2111.01(II). Claims 4 and 18 of the present application do not recite "profiles of those doing the work" as asserted by the Examiner. The Examiner's failure to identify the features of claims 4 and 18 in Howie et al. constitutes a tacit admission that Howie et al. does not disclose any such features.

c. Claims 5 and 19

Claims 5 and 19 depend from claims 4 and 18, respectively, and further recite notifying at least one of the general contractor and the site superintendent when work progress

information is not received for a predetermined time. The Examiner asserts that "Howie discloses notifying the site superintendent (master scheduler) when work progress information is not received (Fig. 11)." Contrary to the Examiner's assertion, Howie et al. does not actually disclose any such arrangement. Fig. 11 details the "solicit bids" block of Fig. 9 during the process of scheduling an operation on a machine in the shop. The processes of Howie et al. shown in Fig. 11 is concerned with scheduling for "bottlenecks", and it has nothing to do with notifying the general contractor or site superintendent when work progress information relating to the construction of a building is not received for a predetermined time as recited in claims 5 and 19. Still further, Howie et al. states that "referring to Fig. 1, there is shown a block diagram of the overall system. The top block, referred to as the master scheduler, is the overall driver program that communicates with the others." (Column 4, lines 37-40). Thus, the "master scheduler" of Howie et al. is a computer program not a construction site superintendent or general contractor as recited in claims 5 and 19.

d. Claims 6 and 20

Claim 6 depends from claim 1, and claim 20 depends from claim 15. Claims 6 and 20 both recite that the work progress information includes at least one current image of the construction site and the building which details changes in at least one of the building and construction site that have occurred from at least one previous image. The Examiner has acknowledged that Howie et al. "does not disclose including an image of the part as it is being manufactured." The Examiner however, goes on to assert that "it is very well known in the art for owners of houses being built to obtain images of the house in the various stages of it being built. Therefore, it would have been obvious to one of ordinary skill in the art to provide such images to increase customer satisfaction."

Applicant respectfully asserts that the Examiner has improperly utilized the failure of the prior art to disclose the arrangement of claims 6 and 20 as a motivation to modify the reference to provide the missing claim elements. Applicant points out that "the Examiner must show reasons that the skilled artisan, *confronted with the same problems as the inventor and with no knowledge of the claimed invention,* would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet,* 47 USPQ2d 1453, 1458

(Fed. Cir. 1998) (emphasis added). Applicant respectfully asserts that one skilled in the art would not include images of houses under construction in the job scheduling system of Howie et al.

e. Claims 7 and 21

Claim 7 depends from claim 6, and claim 21 depends from claim 20. Claims 7 and 21 both recite authorizing payment to the subcontractor that has fulfilled its obligation when the at least one current image validates that the subcontractor has furnished at least one of the contractor labor and the contracted material. Applicant respectfully asserts that Howie et al. does not teach or suggest any such arrangement. Even if the Examiner's assertion that "it is very well known in the art to pay for services when they are completed", it does not necessarily follow that payment is authorized when a current image validates that the subcontractor has furnished the contracted labor and/or material. To the extent that the Examiner is relying on general knowledge to negate patentability, Applicant asserts that the Examiner has not articulated any knowledge related to requiring images prior to authorization of payment. *See In re Lee*, 277 F.3d 1338, 1345, 61 USPQ2d 1430, 1433-35 (Fed. Cir. 2002) (when an Examiner relies on general knowledge to negate patentably, that knowledge must be articulated and placed on the record). *See also In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

f. Claims 9 and 23

Claim 9 depends from claim 1, and claim 23 depends from claim 15. Claims 9 and 23 both recite requesting updated construction project information from at least one of the general contractor and the site superintendent when required construction project information has not been received within a predetermined time. The Examiner has asserted that "Howie teaches requiring work schedule updates, therefore, it would have been obvious to one of ordinary skill in the art to request reports that are not received to ensure that they are received." Applicant respectfully asserts that Howie et al. itself does not teach or suggest requesting updated construction project information as recited in claims 9 and 23, especially if the invention of claims 9 and 23 is considered as whole. Also, to the extent Howie et al. does disclose a request for schedule and schedule information (Fig. 1), and also the schedule options, such

information is being passed between various computer programs, and it is not reasonable to assume that such an arrangement teaches or suggests requesting updated construction project information from a general contractor or site superintendent if the information has not been received within a predetermined time period.

g. Claims 10 and 24

Claim 10 depends from claim 1, and claim 24 depends from claim 15. Claims 10 and 24 both recite receiving a building site inspection request from a building purchaser, providing the building site inspection request to at least one of the general contractor and the site superintendent, and coordinating a mutually acceptable time and date between the building purchaser and at least one of the general contractor and the site superintendent. The present invention, as recited in claim 10, provides a way for a home buyer to track the construction of a home and request changes, or a building site inspection. Applicant respectfully asserts that Howie et al. does not teach or suggest any such arrangement. In fact, Howie et al. does not even recognize the problems associated with arranging for a site inspection by a home buyer who may be located some distance from the construction site.

h. Claims 11 and 25

Claim 11 depends from claim 1, and claim 25 depends from claim 15. Claims 11 and 25 both recite providing a warning to at least one of the general contractor and the site superintendent when a building purchaser reports a building associated problem. Applicant asserts that Howie et al. does not in any way teach or suggest providing a warning when a building purchaser reports a building associated problem. Howie et al. does not disclose or suggest a way for a building purchaser to report a building associated problem. Furthermore, as discussed above, the "Master Scheduler" (see, e.g. Fig. 1) of Howie et al. is a computer program, not a general contractor or site superintendent at a construction site. Furthermore, Howie et al. does not teach any way whatsoever for handling a building associated problem and generating a warning to a general contractor or a site superintendent. Thus, the Examiner's position concerning claims 11 and 25 is pure speculation that is not in any way supported by the actual teachings of Howie et al.

i. Claims 12 and 26

Claim 12 depends from claim 11, and claim 26 depends from claim 25. Claims 12 and 26 both recite scheduling correction of the reported building associated problem with an appropriate subcontractor. Applicant respectfully asserts that Howie et al. does not in any way teach or suggest scheduling correction of a building associated problem reported by a building purchaser with a subcontractor. Howie et al. does not even disclose communication with a buyer, let alone scheduling of a subcontractor when a building purchaser reports a building associated problem. Applicant again points out that Howie et al. discloses computer programs (the "Master Scheduler", the "Work Order Manager", and the "Resource Brokers") that process data according to specific algorithms. Howie et al. itself does not in any way teach or suggest scheduling correction of a building associated problem reported by the building purchaser with a subcontractor as recited in claims 12 and 26.

j. Claims 13 and 27

Claim 13 depends from claim 1, and claim 27 depends from claim 15. Claims 13 and 27 recite that the construction project information further includes location information for determining the location of at least one of the general contractor, the site superintendent and the subcontractor is furnishing at least one of labor and material. Howie et al. does not disclose any need for location information of a general contractor, site superintendent or subcontractor. Furthermore, Howie et al. does not provide any motivation whatsoever to provide such an arrangement.

k. Claims 14 and 28

Claim 14 depends from claim 13, and claim 28 depends from claim 27. Claims 14 and 28 recite that the location information is provided by a portable telephone in the possession of at least one of the general contractor, the site superintendent and the subcontractors. In addition to those reasons set forth above in connection with claims 13 and 27, Applicant respectfully asserts that Howie et al. does not teach or suggest providing location information by a portable telephone.

l. Claim 29

Claim 29 is similar to claim 15, except that claim 15 recites that "the authorized party includes a client for which the building is being constructed", whereas claim 29 recites "the authorized party includes the homebuilder computer system and the client computer system." Applicant respectfully asserts that claim 29 is allowable for substantially the same reasons set forth above in connection with claims 1 and 15. The Examiner has not specified what features of Howie et al. purportedly constitute a "homebuilder computer system" and a "client computer system". Applicant can find no disclosure in Howie et al. of an authorized party that includes a homebuilder computer system and a client computer system. Furthermore, Howie et al. does not provide any motivation whatsoever to include such computer systems in the Howie job scheduling system. Howie et al. deals with the problems of scheduling parts in a shop, but it does not provide any teaching whatsoever with respect to providing construction information to a homebuilder computer system and a client computer system. One of the primary advantages of Applicant's unique arrangement is that it provides a way for a home buyer to timely receive construction information without traveling to the construction site. This aspect of the present invention is completely lacking in Howie et al.

C. Conclusion

For the reasons set forth above, and as is apparent from examining the invention defined by claims 1-29 when properly considering the cited reference, these claims define patentable subject matter. Accordingly, reversal of the rejections of these claims under 35 U.S.C. §103 is appropriate and is respectfully solicited. Also, claims 1-14 define statutory subject matter when evaluated according to the correct legal standard, such that the rejection of these claims under 35 U.S.C. §101 should be reversed.

Respectfully submitted,

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VIII. Appendix of Claims (37 CFR §41.37(c)(1)(viii))

Claim 1: A method for handling construction project information related to the construction of a building, the construction project information including content information, work schedule information, work progress information and change order information, the method comprising the steps of:

receiving content information related to designs for a plurality of buildings;

receiving work schedule information that indicates a projected schedule as to when various construction stages of the buildings are to be completed;

receiving work progress information that indicates the actual progress of the buildings;

receiving change order information directed to changes in the designs of the buildings; and

providing the construction project information on one of the buildings to an authorized party, when requested, wherein the authorized party includes a client for which the building is being constructed.

Claim 2: The method of claim 1, wherein the construction project information is only available to a requesting party that furnishes an appropriate one of an identification (ID) number, a password, a voiceprint and a cryptogram.

Claim 3: The method of claim 1, further including the step of:

revising the work schedule information when the change order information impacts the projected schedule.

Claim 4: The method of claim 1, wherein the construction project information further includes profiles of a general contractor, a site superintendent and all subcontractors furnishing at least one of labor and material.

Claim 5: The method of claim 4, further including the step of:

notifying at least one of the general contractor and the site superintendent when work progress information is not received for a predetermined time.

Claim 6: The method of claim 1, wherein the work progress information includes at least one current image of the construction site and the building which details changes in at least one of the building and construction site that have occurred from at least one previous image.

Claim 7: The method of claim 6, further including the step of:

authorizing payment to the subcontractor that has fulfilled its obligation when the at least one current image validates that the subcontractor has furnished at least one of the contracted labor and contracted material.

Claim 8: The method of claim 1, further including the step of:

verifying the authorized party received the requested construction project information.

Claim 9: The method of claim 1, further including the step of:

requesting updated construction project information from at least one of the general contractor and the site superintendent when required construction project information has not been received within a predetermined time period.

Claim 10: The method of claim 1, further including the steps of:

receiving a building site inspection request from a building purchaser;

providing the building site inspection request to at least one of the general contractor and the site superintendent; and

coordinating a mutually acceptable time and date between the building purchaser and at least one of the general contractor and the site superintendent.

Claim 11: The method of claim 1, further including the step of:

providing a warning to at least one of the general contractor and the site superintendent when a building purchaser reports a building associated problem.

Claim 12: The method of claim 11, further including the step of:

scheduling correction of the reported building associated problem with an appropriate subcontractor.

Claim 13: The method of claim 1, wherein the construction project information further includes location information for determining the location of at least one of the general contractor, the site superintendent and the subcontractors furnishing at least one of labor and material.

Claim 14: The method of claim 13, wherein the location information is provided by a portable telephone in the possession of at least one of the general contractor, the site superintendent and the subcontractors.

Claim 15: A control and inquiry system for handling construction project information related to the construction of a building, the construction project information including content information, work schedule information, work progress information and change order information, the system comprising:

a control and inquiry computer system coupled to a computer network and storing construction project information;

a home builder computer system coupled to the computer network;

a client computer system coupled to the computer network; and

control and inquiry code executing on the control and inquiry computer system and causing the control and inquiry computer system to perform the steps of:

receiving content information related to a design of a building from the home builder computer system;

receiving work schedule information that indicates a projected schedule as to when various construction stages of the building are to be completed from the home builder computer system;

receiving work progress information that indicates the actual progress of the building;

receiving change order information directed to changes in the design of the building; and

providing the construction project information to an authorized party, when requested, wherein the authorized party includes a client for which the building is being constructed.

Claim 16: The system of claim 15, wherein the construction project information is only available to a requesting party that furnishes an appropriate one of an identification (ID) number, a password, a voiceprint and a cryptogram.

Claim 17: The system of claim 15, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of:

revising the work schedule information when the change order information impacts the projected schedule.

Claim 18: The system of claim 15, wherein the construction project information further includes profiles of a general contractor, a site superintendent and all subcontractors furnishing at least one of labor and material.

Claim 19: The system of claim 18, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of:

notifying at least one of the general contractor and the site superintendent when work progress information.

Claim 20: The system of claim 15, wherein the work progress information includes at least one current image of the construction site and the building which details changes in at least one of the building and construction site that have occurred from at least one previous image.

Claim 21: The system of claim 20, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of:

authorizing payment to the subcontractor that has fulfilled its obligation when the at least one current image validates that the subcontractor has furnished at least one of the contracted labor and contracted material.

Claim 22: The system of claim 15, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of:

verifying the authorized party received the requested construction project information.

Claim 23: The system of claim 15, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of:

requesting updated construction project information from at least one of the general contractor and the site superintendent when required construction project information has not been received within a predetermined time period.

Claim 24: The system of claim 15, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional steps of:

receiving a building site inspection request from a building purchaser;

providing the building site inspection request to at least one of the general contractor and the site superintendent; and

coordinating a mutually acceptable time and date between the building purchaser and at least one of the general contractor and the site superintendent.

Claim 25: The system of claim 15, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of:

providing a warning to at least one of the general contractor and the site superintendent when a building purchaser reports a building associated problem.

Claim 26: The system of claim 25, wherein the control and inquiry code causes the control and inquiry computer system to perform the additional step of:

scheduling correction of the reported building associated problem with an appropriate subcontractor.

Claim 27: The system of claim 15, wherein the construction project information further includes location information for determining the location of at least one of the general contractor, the site superintendent and the subcontractors furnishing at least one of labor and material.

Claim 28: The system of claim 27, wherein the location information is provided by a portable telephone in the possession of at least one of the general contractor, the site superintendent and the subcontractors.

Claim 29: A control and inquiry system for handling construction project information related to the construction of a building, the construction project information including content information, work schedule information, work progress information and change order information, the system comprising:

a control and inquiry computer system coupled to a computer network and storing construction project information;

a home builder computer system coupled to the computer network;

a client computer system coupled to the computer network; and

control and inquiry code executing on the control and inquiry computer system and causing the computer system to perform the steps of:

receiving content information related to a design of a building from the home builder computer system;

receiving work schedule information that indicates a projected schedule as to when various construction stages of the building are to be completed from the home builder computer system;

receiving work progress information that indicates the actual progress of the building;

receiving change order information directed to changes in the design of the building; and

providing the construction project information to an authorized party, when requested, wherein the authorized party includes the home builder computer system and the client computer system.

IX. Evidence Appendix (35 USC §41.37(c))

NONE

X. Related Proceedings Appendix (35 USC §41.37(c))

NONE